



The advantages of self-paced and seminar training courses

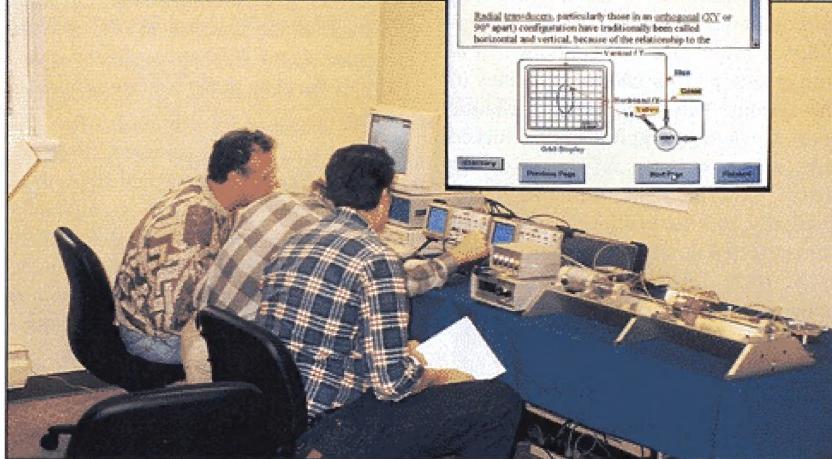
by Pat Gallagher
Product Training Manager
Bently Nevada Corporation

Computer and video technology have revolutionized employee training. Bently Nevada is part of that revolution, with innovative multimedia courses that make complex ideas easier to understand. The graphics and animation capture students' interest and improve their comprehension. The lessons are drawn from the world-renown seminars we have conducted for the past 25 years. This self-paced training is unique, and different than our seminars; each serves a different purpose, and each reinforces the other.

Bently Nevada training courses

Our seminars are the most result-oriented of any machinery monitoring or diagnostic course. At a Bently Nevada seminar, students learn to perform specific tasks, in a series of concise lessons and immediate, hands-on practice. Students practice each task under the close supervision of our field-experienced instructors, at lab stations stocked with leading-edge monitoring and diagnostic systems. Our graduates return to their workplaces proficient in newly acquired skills.

Bently Nevada self-paced training courses share much in common with our seminars. Each course is divided into easily-understood modules. Each module explains a topic in clear, simple language. Like our seminars, the lessons in our self-paced training courses are based on sound theory and have been proven in field applications.



Four types of self-paced training:

Computer-Based Training (CBT). These multimedia computer programs can be used as training courses, complete with examinations, or as random-access references. Their colorful graphics and computer animation capture and hold a student's interest. The material is hypertext-linked for easy access. Computer-Based Training courses run under Microsoft Windows on most 386 (or better) computers. Six different topics are available on CD-ROM. The topics are:

- Vibration Transducer Operation
- Vibration Transducer Selection
- Vibration Noise and Error Sources
- Noise Reduction Techniques
- Measurement Conventions
- Phase Measurements

Instructional Videotapes. These professionally-produced videotapes teach you how to verify the calibration of and

maintain our industry-standard 3300 Monitoring System. In each tape, a narrator explains each step as it is demonstrated on a typical 3300 Monitoring System. Instructional Videotapes for the following 3300 System modules are available:

- 3300/16 Dual Radial Vibration with Gap Monitor
- 3300/20 Dual Thrust Monitor

ADRE® for Windows Case Histories. ADRE for Windows is the industry's premier portable diagnostic instrument. Our Machinery Diagnostics students use ADRE for Windows to develop troubleshooting skill, by analyzing machine data from actual case histories.

ADRE for Windows case histories are now available to help you sharpen your diagnostic skills. Each begins by describing the situation, with machine train diagrams, operator information and a problem statement. Next, use ADRE for Windows to analyze data acquired

from a real, malfunctioning machine. Conclude by using Bently Nevada's analysis, and the plots which support it, to test your diagnosis and refine your technique. Several case histories are available:

- 500 MW Turbine Generator
- Motor Driven Waterflood Pump
- 8 MW Cogen Turbine Generator
- Gas Pipeline Compressor
- 4000 hp Induction Motor
- Gas Turbine Pipeline Compressor
- Gas Pipeline Compressor
- 125 MW Turbine Generator
- Motor/Gearbox/Compressor
- Induced Draft Fan
- 75 MW Turbine Generator
- Boiler Feed Pump Motor

Self-paced manuals. Operators and technicians gain an overview of monitoring system electronics in this excellent, two-part primer. These hardcopy manuals define Bently Nevada monitoring system terminology and concepts.

- Machinery Monitoring System Introduction
- Monitoring System Fundamentals

Different formats, different functions

By its very nature, self-paced training is different than our seminars. Bently Nevada instructors aren't included with our self-paced training, so you have no opportunity to ask questions about specific machines and industries. The hands-on, supervised practice that makes our seminars so valuable is also not included. However, self-paced training is effective, because its content is modified to accommodate these limitations. Self-paced training provides students with a broad overview of the subject material, one that does not require expert instructors or hands-on training.

Self-paced training is effective and valuable because:

- Students can study when time is available.

- Travel is not required.
- The courses remain available for reference.
- Documenting employee training is easy.
- The training stays in the plant when employees leave.
- It is cost-effective for a large number of people.

Seminars and self-paced training each serve a different purpose. Bently Nevada Seminars are the way to gain a detailed, comprehensive understanding of machinery diagnostics and Bently Nevada products. In the field of rotating machinery management and diagnostics, our seminars are unequalled.

Self-paced training is effective when used in either of two ways. As a stand-alone educational tool, it gives students an important overview of machinery protection and diagnostics. The principles you learn increase your awareness of the conditions that contribute to machine failure, and help you to solve problems. Self-paced training is also great as a primer and for review. A student, who has little experience with monitoring systems or diagnostics, will

learn more in a seminar if he previews the topic in a self-paced training course. Review is equally important; self-paced training reinforces many of the lessons taught at our seminars.

For example, our Computer-Based Training (CBT) programs are excellent preparation for any of our product or machinery diagnostics seminars. The fundamentals you learn from a CBT will help you comprehend the seminars' more advanced topics. Similarly, it's a great advantage to view our Instructional Videotapes before attending our 3300 Installation and Maintenance Seminar. The preview will enhance your learning, and help you formulate questions for our instructors regarding your plant's 3300 installation. After the seminar, the same videotapes help refresh your memory.

Rotating machinery management is most effective when it is based on Bently Nevada training. Whether it is the low cost and great convenience of self-paced training, or a seminar's practical skill development, our training improves employee performance. Contact the Bently Nevada Training Department, or your nearest sales representative, for more information.■

Self-paced training answers the concerns of managers and employees

"We don't have enough time to get our work done, much less complete the training we need."	Self-paced training is a very time-efficient way to get the training you require.
"The company sent me to a training course last year, but it wasn't until several months later that I was called upon to use the skills I developed."	Self-paced training is great for refreshing your memory.
"Last year, we sent four people to a training course who were later transferred to another plant."	When personnel turnover occurs, the training remains available at the plant for others.
"Our new policy requires us to document all employee training."	Self-paced training makes it easy to document employee training.
"Everyone in my department should attend that training course, but they can't leave at once, and the course won't be held again until next year."	Self-paced training is very cost-effective and efficient.